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With

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------------|------------------------|
| 10/600,081 | 06/20/2003 | Chris L. Stone | SOL-186 | 6842 |
| 20028 | 7590 | 10/17/2007 | | |
| Lipsitz & McAllister, LLC 755 MAIN STREET MONROE, CT 06468 | | | EXAMINER DUFFIELD, JEREMY S | |
| | | | ART UNIT 4178 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/600,081 | Applicant(s) STONE ET AL. | |
| | Examiner Jeremy Duffield | Art Unit 4178 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>ALL</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Page 3, Line 9, "classified" needs to be changed to "classified"; Page 7, Line 21, "certication" needs to be changed to "certification". Appropriate correction is required.

Claim Objections

2. Claim 31 is objected to because of the following informalities: Line 4, "said content owner" needs to be changed to --said content owner.--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 4-14, and 17-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Alattar (US 7,020,304).

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Regarding claim 1, Alattar teaches a method of tracking a broadcast program (Col. 1, lines 18-30), comprising: adding a registration number to the program, i.e. random number (Col. 9, lines 14-36);

broadcasting the program, i.e. ability to monitor broadcasts (Col. 8, lines 24-28); and

detecting a broadcast signal containing the broadcast program and recording the registration number from the broadcast program (Col. 8, lines 24-28).

Regarding claim 2, Alattar teaches a method of tracking a broadcast program, comprising: inserting a unique watermark value into a program to be broadcast (Col. 5, lines 59-63);

deriving a fingerprint value based on said program's content (Col. 20, lines 15-17);

storing said program's watermark value and associated fingerprint value (Col. 10, lines 10-18; Col. 20, lines 50-54);

detecting any watermark value inserted in a given broadcast program (Col. 8, lines 24-28);

deriving a fingerprint value based on said given broadcast program's content (Col. 20, lines 15-17); and

comparing any detected watermark value and derived fingerprint value from said given broadcast program with said stored watermark and associated

fingerprint values. Examiner equates a database relating ID's from a watermark to information in the database to comparing a detected watermark value with a stored watermark value (Col. 10, lines 10-18; Col. 20, lines 49-55).

Regarding claim 4, Alattar teaches said program to be broadcast has an associated embedded audio data stream (Col. 2, lines 7-10 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application); and

said unique watermark is encoded into the bits of said program's embedded audio data stream, i.e. tag in a file header (Col. 3, lines 55-57 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application).

Regarding claim 5, Alattar teaches creating a database in which the unique watermarks and their associated derived fingerprint values for a plurality of unique programs to be broadcast are stored (Col. 10, lines 10-18; Col. 20, 50-54); and

registering the unique watermark and associated derived fingerprint value for said program to be broadcast in said database (Col. 20, lines 50-54), (Col. 4, lines 2-6 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application);

comparing said watermark detected in said given broadcast program with the watermarks stored in said database (Col. 10, lines 10-18); and

when said database contains a stored watermark which matches said detected watermark, cross-checking said fingerprint value derived from said given broadcast program with the stored fingerprint value associated with said stored watermark (Col. 10, lines 10-18), (Para. 58, lines 1-5 of US 2002/0126872 which is stated as prior art from Col. 20, lines 29-35 of this application).

Regarding claim 6, Alattar teaches reporting the results of said cross-checking to a registrant of said program to be broadcast (Para. 39, lines 16-22 of US 2002/0126872 which is stated as prior art from Col. 20, lines 29-35 of this application).

Regarding claim 7, Alattar teaches comparing said fingerprint value derived from said given broadcast program with all said stored fingerprint values when said fingerprint value derived from said given broadcast program is different than said stored fingerprint value associated with said stored watermark (Para. 39, lines 16-22 of US 2002/0126872 which is stated as prior art from Col. 20, lines 29-35 of this application).

Regarding claim 8, Alattar teaches registering the program with a registration database according to its registration number (Col. 9, lines 16-21).

Regarding claim 9, Alattar teaches comparing the recorded registration number from the broadcast signal with registration numbers stored in said registration database (Col. 9, lines 31-36);

forwarding a notification to at least one of a registrant of the program or an owner of the program in the event that said recorded registration number matches a stored registration number (Para. 39, lines 16-22 of US 2002/0126872 which is stated as prior art from Col. 20, lines 29-35 of this application).

Regarding claim 10, Alattar teaches a method for enabling reliable identification of a content comprising:

embedding a watermark value into said content to produce an embedded content (Col. 5, lines 56-63);

generating a fingerprint associated with said content (Col. 20, lines 9-17);

registering information comprising said watermark value and said fingerprint, wherein said information can be subsequently used to identify said content (Col. 10, lines 10-18; Col. 20, lines 50-55).

Regarding claim 11, Alattar teaches said fingerprint is generated by analyzing inherent characteristics of the content (Col. 20, lines 9-17).

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Regarding claim 12, Alattar teaches said inherent characteristics comprise at least one of luminance, chroma, gamma, or amplitude levels of the content (Col. 20, lines 9-17).

Regarding claim 13, Alattar teaches said fingerprint is generated for at least portions of an audio or video component of said signal (Col. 20, lines 9-17).

Regarding claim 14, Alattar teaches said watermark value is embedded in at least portions of an audio or video component of said content (Col. 5, lines 56-63).

Regarding claim 17, Alattar teaches receiving information comprising at least said watermark value and said fingerprint at a registration authority (Fig. 1 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application); and

verifying the received information (Col. 10, lines 10-18; Col. 20, lines 49-55).

Regarding claim 18, Alattar teaches comparing at least one of said watermark value or said fingerprint against a database of registered watermark values and fingerprints (Col. 10, lines 10-18; Col. 20, lines 49-55).

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Regarding claim 19, Alattar teaches registering is completed when said comparing produces no matches (Col. 10, lines 29-36 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application).

Regarding claim 20, Alattar teaches registering is not completed when said comparing produces at least one match (Col. 10, lines 29-36 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application).

Regarding claim 21, Alattar teaches notifying at least one of an applicant or a content owner (Col. 10, lines 24-30).

Regarding claim 22, Alattar teaches registering is partially completed when said comparing produces at least one match (Col. 10, lines 29-36 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application).

Regarding claim 23, Alattar teaches contacting at least one of an applicant for registration or a content owner (Col. 10, lines 24-30); and

updating said database in accordance with the response(s) of said applicant or said content owner, i.e. content owner uploading the version ID to a central database (Col. 10, lines 24-30).

Regarding claim 24, Alattar teaches receiving additional content identification information (Col. 5, lines 59-63).

Regarding claim 25, Alattar teaches said additional content identification information comprises at least one of content title, ownership information, or origination information (Col. 5, lines 59-63).

Regarding claim 26, Alattar teaches comparing at least one of said watermark value, said fingerprint or said additional content information against a database of registered watermark values, fingerprints and additional content identification information (Col. 10, 10-18; Col. 20, lines 49-55).

Regarding claim 27, Alattar teaches registering is completed when said comparing produces no matches (Col. 10, lines 29-36 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application).

Regarding claim 28, Alattar teaches registering is not completed when said comparing produces at least one match (Col. 10, lines 29-36 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application).

Regarding claim 29, Alattar teaches notifying at least one of an applicant for registration or a content owner (Col. 10, lines 24-30).

Regarding claim 30, Alattar teaches registering is partially completed when said comparing produces at least one match (Col. 10, lines 29-36 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application).

Regarding claim 31, Alattar teaches contacting at least one of an applicant for registration or a content owner (Col. 10, lines 24-30); and

updating said database in accordance with the response(s) of said applicant or said content owner, i.e. content owner uploading the version ID to a central database (Col. 10, lines 24-30).

Regarding claim 32, Alattar teaches a method for enabling identification of a received content comprising: generating a fingerprint associated with said received content (Col. 20, lines 15-17);

analyzing said received content to discern the presence of embedded watermarks (Col. 10, lines 29-35 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application); and

identifying said received content utilizing at least one of said fingerprint and said analyzing (Fig. 1 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application).

Regarding claim 33, Alattar teaches identifying is based on additional information stored in a registration database, i.e. version number stored in a system (Col. 9, lines 14-21).

Regarding claim 34, Alattar teaches no watermarks are detected as a result of said analyzing (Col. 10, lines 26-35 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application);

said identifying comprises comparing said fingerprint with a database of registered fingerprints (Col. 20, lines 50-55); and

if a match is discovered, reporting the reception of a registered content (Col. 10, lines 26-35 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application).

Regarding claim 35, Alattar teaches no watermarks are detected as a result of said analyzing (Col. 10, lines 26-35 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application);

said identifying comprises comparing said fingerprint with a database of registered fingerprints (Col. 20, lines 50-55); and

if no matches are discovered, reporting the reception of an unregistered content (Para. 7, lines 7-11 of US 2002/0126872 which is stated as prior art from Col. 20, lines 29-35 of this application).

Regarding claim 36, Alattar teaches at least one watermark is detected as a result of said analyzing (Col. 10, lines 26-35 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application); and the detected watermark and said fingerprint are combined to uniquely identify said received content (Col. 20, lines 25-29).

Regarding claim 37, Alattar teaches at least one watermark value is detected as a result of said analyzing (Col. 10, lines 29-35 of US 6,505,160 which is incorporated by reference from Col. 10, lines 30-36 of this application); said identifying comprises comparing the detected watermark value with a database of registered watermark values (Col. 10, lines 10-18); and if the detected watermark value matches a registered watermark value from the database, said fingerprint is compared with a database of registered fingerprints (Col. 20, lines 50-55); and if the fingerprint matches a registered fingerprint from the database, a first identification information associated with said stored watermark value is compared with a second identification information associated with said fingerprint to assess the status of said received content (Para. 11, lines 5-12 of US

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2002/0126872 which is stated as prior art from Col. 20, lines 29-35 of this application).

Regarding claim 38, Alattar teaches an agreement between said first and second identification information indicates the reception of a properly registered content (Para. 11, lines 5-12 of US 2002/0126872 which is stated as prior art from Col. 20, lines 29-35 of this application).

Regarding claim 39, Alattar teaches a report is issued in the event of a conflict between said first and second identification information, i.e. content is considered to be modified (Para. 11, lines 5-12 of US 2002/0126872 which is stated as prior art from Col. 20, lines 29-35 of this application).

Regarding claim 40, Alattar teaches a conflict between said first and second identification information indicates the reception of an improperly registered content or an altered content (Para. 11, lines 5-12 of US 2002/0126872 which is stated as prior art from Col. 20, lines 29-35 of this application).

Regarding claim 41, Alattar teaches said detected watermark value is used to facilitate the fingerprint search within said database (Para. 39, lines 16-

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22 of US 2002/0126872 which is stated as prior art from Col. 20, lines 29-35 of this application).

Regarding claim 42, Alattar teaches cryptographic techniques are employed to ensure secure communications with said database, i.e. using private keys for accessing a private database (Col. 12, lines 49-63).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alattar in view of Baker (US 6,912,010).

Regarding claim 3, Alattar teaches all elements of claim 2.

Alattar does not teach said unique watermark value is written into the user bits of said program's SMPTE time code.

Baker teaches a source ID is written into the user bits of the program's SMPTE time code (Col. 1, lines 44-48; Col. 2, lines 20-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar's watermark embedding

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technique to include writing the watermark value into the user bits of a vertical interval time code for the purpose of saving program signal bandwidth.

Regarding claim 15, Alattar teaches all elements of claim 10.

Alattar does not teach a source ID is inserted into an auxiliary information area of said content.

Baker teaches said watermark value is inserted into an auxiliary information area of said content (Col. 1, lines 44-48; Col. 2, lines 20-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Alattar's watermark embedding technique to include writing the watermark value into the user bits of a vertical interval time code for the purpose of saving program signal bandwidth.

Regarding claim 16, Alattar in view of Baker (Col. 1, lines 44-48) teaches said auxiliary information area is reserved for an SMPTE time code.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Duffield whose telephone number is (571) 270-1643. The examiner can normally be reached on Mon.-Thurs. 7:30 A.M.-5:00 P.M. EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Tran can be reached on (571) 272-7305. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSD
October 10, 2007

A handwritten signature in black ink, appearing to read 'Hai Tran', is written over two horizontal lines.

**HAI TRAN
PRIMARY EXAMINER**